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The diagram illustrates a system for measuring the angular position of a shaft. A shaft (50) is shown with a sensor assembly (300) and an ASD (400) mounted on it. The sensor assembly includes a piezo vibrator (450) and a control electronics unit (420). The control electronics unit is connected to a battery (410) and a switch (430). The control electronics unit also outputs a signal (460) to the ASD (400).

(57) Abstract: The present invention provides an attitude sensing device and method for determining an attitude of a reference axis of a package (50) containing a fibre optic sensor (200). The attitude sensing device comprises an electro-mechanical attitude sensor (210, 215) for generating an electrical signal indicative of the attitude of that attitude sensor, and converter logic for converting the electrical signal into a stimulus signal. A local power source is preferably provided for the electro-mechanical attitude sensor (200, 215) in the converter logic. The stimulus signal is such that the fibre optic sensor (200) is responsive to the stimulus signal to cause a variation in at least one predetermined property of an optical signal transmitted through the fibre optic sensor (200), the attitude of the reference axis being determinable from the variation of the predetermined property. By this approach, it is possible to use the existing fibre optic sensor (200) within the package (50), along with the corresponding existing telemetry and multiplexing system, to recover the information from the electro-mechanical attitude sensor (210, 215).